DOCUMENTS EXPEDITING PROJECT

No. 5

U.S. POLICY ON THE CONTROL AND USE OF OUTER SPACE

REPORT

OF THE

COMMITTEE ON SCIENCE AND ASTRONAUTICS

U.S. HOUSE OF REPRESENTATIVES

EIGHTY-SIXTH CONGRESS

FIRST SESSION

Printed for the use of the Committee on Science and Astronautics

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UNITED STATES
GOVERNMENT PRINTING OFFICE
40103 WASHINGTON : 1959

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LETTER OF TRANSMITTAL

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE AND ASTRONAUTICS,
Washington, D.C., April 30, 1959.

Hon. OVERTON BROOKS,
Chairman, Committee on Science and Astronautics.

DEAR MR. CHAIRMAN: I am forwarding herewith for committee consideration a report on "U.S. Policy on the Control and Use of Outer Space" which has been prepared by professional staff members Philip B. Yeager in consultation with Spencer M. Beresford.

This report is based on open hearings of qualified witnesses and information obtained through staff research. It summarizes the sober judgment of a fair cross section of those who have given most serious study to the difficult, often touchy problems of regulating human behavior in outer space.

An evaluation of the trends of competent thought relative to the control and use of space suggests the advisability of immediately considering formulation of a more positive national policy on this matter. The initial meetings of the United Nations Ad Hoc Committee on the Peaceful Use of Outer Space, scheduled in the weeks just ahead, make this report with its conclusions and recommendations particularly timely.

CHARLES F. DUCANDER,
Executive Director and Chief Counsel.

LETTER OF TRANSMITTAL

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U.S. POLICY ON THE CONTROL AND USE OF OUTER SPACE

I. OBJECTIVE OF COMMITTEE ACTION

During the period of the International Geophysical Year which ended December 31, 1958, and particularly during the first part of 1959, it has become increasingly clear that the successful exploration of outer space by the nations of Earth does not depend solely upon the physical capability to investigate that medium.

Space is a place. And whether we think of it as a specific area for operation, like the high seas, or as an endless void which exists merely to be traveled through en route to someplace else, or as a mysterious realm abounding in cosmic forces which may, in time, be keyed to the affairs of Earth, human activities in space will require some restraint just as they do on the surface of the planet and in the air above it.

While space is a vast theater, it is doubtful if the region of space with which we are presently most concerned—that is, cislunar space, the area no further away from Earth than the Moon—is any more formidable for today's world than the oceans were for the world of Columbus and Magellan. If man's activities in space are not regulated to some extent by international agreement and law, anarchy in space will grow. Sooner or later dangerous conflict will almost certainly result. Quite possibly it will be sooner. For example, serious objections have already been registered in the United States to transmission frequencies used by the Soviet satellites, some of which have violated international law. Moreover, the Communists have protested, at least in their political broadcasts, the American polar satellites which, they argue, should not have been launched without prior consultation with countries lying beneath their orbital path.

Because of this situation and because the United States at the present time has no crystallized positive policy toward space—other than its general commitment to reserve space for peaceful purposes and to study related problems—the Committee on Science and Astronautics has inquired into the problems of formulating such policy. The committee has acted in response to the duty imposed upon it by the House (H. Res. 580, 85th Cong.) to exercise jurisdiction of legislative interests pertaining to "outer space, including exploration and control thereof." It has done so with several objectives in mind:

(1) To develop, as far as is consistent with the committee's mission, recommendations regarding the establishment of a U.S. policy toward the exploration, use, and control of space;

(2) To suggest certain lines along which a reasonable policy might be developed; and

(3) To emphasize the importance of timing.

II. EVOLUTION OF THE PROBLEM

In the spring and summer of 1955, both the United States and the Soviet Union disclosed to the world that they had plans for investigating outer space as part of the International Geophysical Year.

Notice of intent on the part of the United States was given formally by the President in his disclosure of the decision to go ahead with Project Vanguard. The project was designed to put an earth-circling satellite into orbit for scientific purposes. In the Soviet Union, Communist chief Nikita Khrushchev announced formation of a Soviet "Interdepartmental Commission for Interplanetary Communications" with similar objectives. He implied a willingness to cooperate with other countries during the International Geophysical Year in the collection and dissemination of information about space.

In the months that followed several blurred facets of international security resolved into finer detail. One of these was the rapid improvement and production of the hydrogen bomb; the other was the development of long-range missile techniques to a point of sophistication which guaranteed their future as first-line weapons systems.

Thus on January 10, 1957, 9 months prior to Sputnik I, President Eisenhower deemed it appropriate to suggest in his state of the Union message that the international community seriously consider a plan to "mutually control the outer space missile and satellite development." This was the first time that the executive head of any nation proposed limiting human activities in space.

The President's suggestion was incorporated in a disarmament proposal offered to the United Nations Political Committee on January 14, 1957, which asked that future developments in space be devoted exclusively to peaceful and scientific purposes. In December 1957—after Russia had launched Sputniks I and II—the United Nations General Assembly passed a resolution which provided, among other things, for the study of an inspection system to insure that space vehicles be limited to peaceful purposes. On January 13, 1958, the President wrote to Nicolai Bulganin, then Soviet Premier, again proposing that outer space be used only for peaceful purposes.

The Soviets declined to participate or cooperate in any of these three moves sponsored by the United States.

On January 31, 1958, the first American space satellite was successfully placed in orbit. It was soon followed by other successful launchings. By this time international political attitudes toward the use of space had inevitably hardened, and the best opportunity for early agreements on the use of space had gone by.

Congressional action

In February and March 1958, the Senate and House of Representatives established select committees to handle the swiftly multiplying legislative concerns with outer space. Chaired by Senator Lyndon B. Johnson of Texas, and Representative John W. McCormack, of Massachusetts, respectively, these committees took cognizance of the President's request of April 2, 1958, for the establishment of a new civilian agency to direct the space activities of the United States.

A revised version of the President's space agency proposal was drafted, considered, and reported by the House Select Committee on Astronautics and Space Exploration. Eventually this bill, with

Senate amendments, became the enabling act for the National Aeronautics and Space Administration. The act carried, as did a concurrent resolution (H. Con. Res. 332, 85th Cong.) passed before it, a declaration of U.S. policy that "activities in space should be devoted to peaceful purposes for the benefit of all mankind."

In spite of these affirmations of peaceful intent, a recurring suspicion plagued the House select committee that something more concrete might be needed in the field of international agreement. For this reason, during its exhaustive hearings on the technical and administrative aspects of a potential national space program, the select committee managed to hear from three strategically placed experts in international, air, and space law; Loftus Becker, Legal Adviser to the State Department; Andrew G. Haley, general counsel for the American Rocket Society and president of the International Astronautical Federation; and John Cobb Cooper, veteran authority on air law and founder of the International Air Law Institute at McGill University.

The testimony of these men, while inconclusive at the time and conflicting in regard to the procedure the United States should follow, nevertheless confirmed the importance of developing some beginning rules for space behavior and of securing international agreements on the use of space, or activities therein, where feasible.

Subsequently, at the direction of the select committee, the committee staff undertook a comprehensive study of the political and legal problems attending the exploration of outer space. This study, "Survey of Space Law" (H. Doc. 89, 86th Cong.), disclosed a surprisingly widespread interest in and concern for the social facets of man's venture into space. The views of important figures in the space arena, scientific and governmental, public and private, foreign and domestic, were assembled and studied. Papers on the subject were translated from many languages—French, German, Spanish, Russian, Chinese, Japanese, etc. From 500 or so references, the conclusion was reached that specific need for space regulation existed, or soon would exist, on more than half a dozen significant counts.

United Nations activities

On December 12, 1958, the General Assembly of the United Nations adopted a U.S. resolution setting up a special committee to explore the control and use of space as follows:

The General Assembly * * *

1. Establishes an ad hoc committee on the peaceful uses of outer space consisting of the representatives of Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Iran, Italy, Japan, Mexico, Poland, Sweden, Union of Soviet Socialist Republics, United Arab Republic, United Kingdom, and United States of America and requests it to report to the 14th General Assembly on the following:

(*a*) The activities and resources of the United Nations, its specialized agencies, and of other international bodies relating to the peaceful uses of outer space;

(*b*) The area of international cooperation and programs in the peaceful uses of outer space which could appropriately be undertaken under United Nations auspices to the benefit of states irrespective of the stage of their economic or scientific development, taking into account the following proposals, among others:

(i) continuation on a permanent basis of the outer space research now being carried on within the framework of the International Geophysical Year;

(ii) organization of mutual exchange and dissemination of information on outer space research; and

(iii) coordination of national research programs for the study of outer space and the rendering of all possible assistance and help toward their realization.

(*c*) The future organizational arrangements to facilitate international cooperation in this field within the framework of the United Nations;

(*d*) The nature of legal problems which may arise in carrying out of programs to explore outer space;

2. Requests the Secretary General to render appropriate assistance to the above-named committee and to recommend any other steps that might be taken within the existing United Nations framework to encourage the fullest international cooperation for the peaceful uses of outer space.

Although this resolution contained all the substantive recommendations of the Soviets relating to space, the Communist bloc in the United Nations objected to having only three of their members (Czechoslovakia, Poland, and the U.S.S.R.), plus several "neutrals," on the 18-member committee. They have thus announced their intent to boycott the proceedings of the ad hoc committee and, so far, have shown no disposition to retreat from this position.

Four months after the creation of the ad hoc committee, it had yet to hold its first meetings. However, the committee is expected to organize in May, this year, and submit its initial findings to the General Assembly late next fall.

III. HEARINGS BEFORE THE SCIENCE AND ASTRONAUTICS COMMITTEE

Against this background the new Science and Astronautics Committee, successor to the select committee of the 85th Congress, determined to investigate the more immediate problems on the control and use of outer space, with the objectives outlined in the foregoing.

The committee selected a small group of qualified witnesses representing a cross section of those who have been required to give careful thought to space use. Included were Senator Kenneth B. Keating, of New York, who has served with the Judiciary Committees of both Houses of Congress; Dr. Francis O. Wilcox, Assistant Secretary of State for International Organization Affairs; Loftus Becker, Legal Adviser to the State Department; John A. Johnson, General Counsel for the National Aeronautics and Space Administration; Rear Adm. Chester Ward, Judge Advocate General of the Navy; George J. Feldman, Staff Director and Chief Counsel for the select committee of the 85th Congress, now consultant to the State Department on the problems of outer space; Frederick C. Durant III, official for the Avco Corp. and former president of both the American Rocket Society and the International Astronautical Federation.

Each of these witnesses has had particular reason to give concentrated study to the politico-legal phases of space exploration and to the concomitant international problems and procedures. Each, with the exception of Admiral Ward, who filed a comprehensive statement, appeared before the committee during special hearings on the international control and use of outer space. Further staff consultations were held with some of these and other experts in efforts to determine the feasibility of formalizing U.S. policy toward the use of space.

Without here attempting to summarize the views of each witness on this difficult and delicate subject, it is submitted that the following comments—excerpts from testimony before the committee—are representative of contemporary expert opinion:

Senator Keating

I believe that there has not been enough emphasis on the necessity for adapting some of our earthbound concepts to the requirements of this new age. For that reason I am very gratified at this committee's initiative in centering attention in these hearings on one of the most pressing of all the new nonscientific problems raised by the space age—the need for new rules of law for the settlement of space controversies. I don't state that strong enough. I commend in the highest terms this committee for taking up this subject which is fraught with so many problems and difficulties, but which is so important, it seems to me, to our development in this field.

It may be, as many people claim, that it will be the scientists who will chart the future course of the world. Their spectacular achievements certainly have merited them unparalleled eminence. But the scientists cannot be counted upon or expected to keep our moral progress abreast of our scientific advances.

This responsibility ultimately lies with the people, and they will properly expect their lawmakers to take the lead in proposing the new concepts and principles which are necessary. These hearings can serve a historic purpose if they result in even the most tentative first steps in the direction of devising a new legal code for the space age.

There are some who underestimate the serious consequences of any lag between legal and scientific developments. They recall with nostalgia the centuries required for the flowering of the common law, and fondly anticipate similar development of the new space law. I grant that law is shaped and nourished by experience—but I also insist that it is fundamentally based on necessity. The necessity for new laws and concepts in this case is overwhelming.

There will be no time for legal craftsmanship and judicial speculation after rival claims are made to the Moon or to space itself. Civilization has now reached a point at which a gap between our moral and technological tools could be fatal. The rule of law in the age of space is not a matter of philosophy, but a matter of survival.

Dr. Francis O. Wilcox

Man's venture into outer space, which is both exciting and stimulating, is also a very natural development. Man's curiosity about his environment led first to his exploration of all of the areas of the planet on which we live.

Now science and technology have combined to make it possible to project his intellect and his curiosity outside this Earth's atmosphere. I am sure that I voice the views of all of you when I express the hope that in projecting himself beyond the confines of our planet, man will not also project those international rivalries and disagreements which have all too often hindered his progress toward a better way of life on this Earth. * * *

We feel very strongly that here is an area where international rivalries should not obtain. Here is an area where we can, if we and others are wise enough, use man's ingenuity and his abilities to contribute to the well-being of all mankind. Indeed, it would be tragic if we were to repeat in outer space our unfortunate experiences in the field of atomic energy. * * *

The areas of cooperation which might be undertaken by the U.N. are exceedingly broad. We believe, moreover, that the U.N. will encourage rather than discourage nongovernmental international cooperative programs which are presently underway. * * *

But I also believe that if outer space is to bring to mankind the great benefits which it promises, it will also be necessary to seek international cooperation on the governmental level in a number of areas. There is a great deal of significant work which can be undertaken with the assistance of the U.N. or through cooperation between the U.N. and nongovernmental international scientific groups, and many of these programs should be undertaken very shortly, lest we take action now which will make more difficult in the future man's use of this vast area.

For example, we have all heard about the use of outer space and space vehicles, either manned or unmanned, for such things as meteorological studies, mapping, communications, and navigation. The chairman of this committee recently pointed out that at least $2 billion a year could be saved in the United States alone by the use of weather satellites capable of making reliable, long-range weather forecasts. Estimates of the gains that might result from the use of communications satellites are equally impressive.

Yet it is possible that by failing to take certain vital steps at the present time we may make more difficult the accomplishment of these important gains.

John A. Johnson

The National Aeronautics and Space Administration is deeply interested in the efforts of the United States and of the United Nations to explore means of fostering the development of programs of international cooperation in the peaceful uses of outer space and of confining the use of outer space to peaceful purposes only. The resolution of the 13th General Assembly of the United Nations is a hopeful step along that road.

At the present time, the United Nations committee is the only means available of moving ahead. While the scope of the United Nations resolution is modest, a fruitful beginning may lead to ever-expanding areas of agreement. * * *

The National Aeronautics and Space Administration regards the entire subject of what I choose to call the law of space activities as a matter of the utmost importance.

Under present circumstances, a comprehensive convention for control of outer space activities appears most unlikely. However, I think we can begin to move ahead in certain areas where agreement seems clearly in the interests of all nations and where self-enforcing arrangements appear possible. The starting points might well be an agreement to coordinate satellite launching schedules, and an agreement making freely available to all nations certain types of information obtained from space activities.

Loftus Becker

I don't feel the sense of urgency that we have to get moving as quickly as some other people do. In the first place, I have repeatedly stated that any sound body of law is based on a system of experienced and known facts. There are a great deal of facts that we just don't know at the present time with respect to outer space and the conditions there existing.

Second, in a number of areas we have some perfectly adequate mechanisms that are working and will produce rules that will be just as applicable in outer space as they are on the Earth.

Third, I can see an attempt to move too fast in this field as stimulating conflict rather than agreement.

Finally, as has already been indicated here this morning, there is no magic in a rule. The very nature of international law is that it is consensual. And unless a nation agrees it will be bound by a particular rule, it doesn't help you a great deal to have the rule. * * *

I heartily support cooperation in the outer space field. Through that very ocoperation we will of necessity develop a number of rules designed to avoid conflict and interference and mutual forbearance.

That can go forward even without the Soviet Union, and I heartily share the view of the gentleman who said a little earlier that in the course of time the Russians will feel impelled to join in that effort and perhaps we can get agreement more quickly by proceeding in that manner than by calling an international conference which the Soviets refuse to attend.

George J. Feldman

Although the National Aeronautics and Space Administration was not given regulatory powers, the House and Senate committees contemplated that it would conduct research with a view to domestic legislation and that it would also participate directly in studies and proposals for international agreements governing the use of outer space.

Section 205 of the act expressly authorizes the Space Administration to "engage in a program of international cooperation in work done pursuant to this Act."

In addition, the act authorized the Administration to engage in "the establishment of long-range studies of the potential benefits to be gained from the opportunities for, and the problems involved in the utilization of aeronautical and space activities for peaceful and scientific purposes."

Today this need is emphasized by the legal uncertainties which have arisen with the expiration of the International Geophysical Year. It is becoming increasingly urgent with the passage of time in view of the increasing space capabilities not only of the United States and the Soviet Union but of Great Britain and soon other nations as well. * * *

I should like to remind you also that section 201 of the Space Act established a National Aeronautics and Space Council, chaired by the President. One of the stated functions of the Council is to develop a comprehensive program of aeronautical and space activities to be carried out by the U.S. Government.

Under this provision it would seem appropriate for the Council to consider and formulate a statement of the U.S. position on international collaboration in outer

space, for presentation at the proper time in the United Nations study committee.

Frederick C. Durant III

Last April * * * I set forth four suggested programs of international cooperation in the realm of space flight. These programs, briefly, were: (1) The collection and dissemination, in several languages, of information on space programs, both of this country and others; (2) the establishment of graduate-level science scholarships available on an exchange basis, or by international competition; (3) establishment of an international competition in designing research payloads to be installed in some U.S. satellites; and (4) a call for an international conference on the peaceful applications of rocket power.

One reason for interest in action on these points is because, in my opinion, there continues to be a complete vacuum of leadership in the area of international cooperation in astronautics, other than some interchange of scientific data within the past International Geophysical Year. One reason given for lack of cooperation in space vehicle operations of the United States and U.S.S.R. to date is the quite valid interest in protection of the military security details of rocket launching vehicles. Neither the Russians nor this country are willing, I am certain, to discuss freely details of their launching vehicles because of the close relationship of this technology with ballistic missile technology.

But these two countries represent only 15 percent of the world's population. About 85 percent of the world is standing by as a passive observer in this exciting new development of space flight. And in all of these countries there are brilliant scientists and engineers. And also youngsters in high schools and universities anxious to move into advanced academic training and wanting to participate, quite naturally, in this science of astronautics.

In all of these countries, outside the United States and the U.S.S.R., there is little or no opportunity for participation. I believe this sets the scene wherein the United States could make a valuable contribution in assisting qualified persons in these other countries to play some role, to make it possible for them to be other than simply passive observers in this exciting exploration of a whole new dimension.

In my opinion, by taking steps to assume leadership in this way, the United States will go down in history as having recognized a very normal need and expressed a willingness to share this heritage with other countries.

In contrast to most of the foregoing attitudes is the statement filed with the committee, at its request, by Admiral Ward.[1] The tenor of Admiral Ward's position in regard to international agreements may be illustrated by these excerpts from his statement:

Admiral Ward

I submit that a space code restricting the freedom of space would indeed hamstring our military; and that Project Argus proved it.

The issue of survival cannot be suppressed; nor can the disarmament problem be disengaged. The reasoning that this can be done is, I respectfully submit, largely irrelevant, and certainly it seems to beg the realistic issue. Neither the physical facts nor the functions of space vehicles can be forced into the fanciful framework wrought by the escapist, would-be architects of "peace through law" in space. For certainly it is an escape solution to assert that missile problems, plus all disarmament problems and security and defense issues, should be—and therefore by tacit assumption can be—severed from the remainder of the essential agenda of any practicable system of space law. * * *

Substantially every "scientific" use of space has military implications: many are known to us even now; probably many more exist but are not yet discovered or capable of being understood at this infantile stage of space developments. This should be proved beyond cavil by the Score project: the mission of the Atlas missile of December 1958 was "Signal Communications by Orbiting Equipment." It established that men in space vehicles will be able to talk to men on Earth.

Scientific accomplishments? Definitely; but equally a military accomplishment in space, and one which foreshadows much more reliable military communications on this Earth. * * *

[1] Admiral Ward stressed that his statement represents his personal views and does not necessarily represent those of the Navy Department or the Department of Defense. The full text of all the foregoing testimony and statements will be found in the hearings before the Committee on Science and Astronautics relative to the international control of outer space, Mar. 5, 6, and 11, 1959.

The search for world peace through space law therefore should seek other alternatives. What are the possibilities of agreements restricting the use of outer space to "peaceful purposes"?

The United States is, of course, already leading in official declarations in favor of "peaceful uses" of outer space. Congress has endorsed this objective both in resolutions and in substantive law (the National Aeronautics and Space Act of 1958). Even in our United Nations resolution of December 12, 1958, however, we speak in terms of "international cooperation and programs." This is quite a different thing from a proposal for international agreements purporting to control the use of outer space. Cooperation can do no harm, and may do much good. International control agreements, on the other hand, can—at the present time—do us little good, and, for several reasons, could do us substantial harm.

The first disadvantage we suffer in any negotiations with the Communists dealing with the term "peace" or "peaceful" is that we are largely incapable of understanding what they mean by the term. * * *

But, even assuming, contrary to fact, that we are not hopelessly taken in by the Communist general meaning of "peaceful," too narrow a specific definition thereof in relation to international agreements governing the uses of outer space could greatly advantage the Communists and disadvantage us. This is because of the difference in the constituency of their military power and ours here on Earth. * * *

Since our national survival may constantly depend upon maintaining our superiority in nuclear weapons, we should consider * * * how we may sacrifice—through premature or unsafeguarded international space agreements—our chance to keep the necessary margin of progress in developing better, cleaner, and more precise forms of atomic military power. This requires a look at how free we now are to make use of outer space, unfettered as yet by any international agreements.

There is a very substantial consensus that, regardless of where outer space does begin, it is "free," and not subject to claims of national sovereignty. * * *

Thus, absent international agreement, outer space is free to be used in all manner exactly as the high seas have traditionally been used. The effect of any international agreement will thereby be to restrict this freedom. * * *

It wouldn't be nearly so threatening to our survival if the only danger of our entering into international agreements controlling the use of space was merely that such agreements cannot bind Russia. The real danger—and it's so real that it may be the death of our trusting, idealistic country some too soon day—is that such international agreements to which Russia and the United States are parties, do bind us even though they don't bind the Communists. When we enter into an international agreement, we keep it. Against us, it is self-enforcing. Not so for the Communists; look at their record. * * *

IV. CONCLUSIONS

From the hearings and investigations conducted by the committee and its staff, it is possible to draw certain reasonably firm conclusions in regard to the trends of contemporary thinking on the international control of human activities in space.

These conclusions may be summarized as follows:

(1) Authoritative opinion, within the Government and outside it, is now closer to unanimity in advocating prompt efforts to begin the formulation of at least some international principles of conduct for the use of space beyond the definable atmosphere. This view, however, takes account of the caveat that the United States and the free world, through international agreement, may unduly restrict their space operations while the Communist world does not.

(2) The present state of international law is not sufficiently developed to cover problems of space, and in many cases its seemingly analogous principles would be inappropriate. This means that a fresh approach is necessary.

(3) Early efforts to develop such an approach should not involve the attempted formulation of a detailed code. Too little is known

about space at the present time to permit any true codification of space law.

(4) In considering and discussing with other countries a means for controlling the use of space, better results may be expected if national representatives initially avoid matters which are akin to disarmament, such as inspection plans or agreements attempting to define or control military space vehicles. Experience indicates that the disarmament nut is still too tough to crack. The peaceful development of space would not be served simply by shifting this argument from one locale to another.

(5) The most likely area for a beginning process of space control is the commercial and scientific uses of space.

(6) Efforts to explore means of space control need not be limited to activities at the United Nations level. Effective use may also be made of such private organizations as the International Council of Scientific Unions, the International Astronautical Federation, the International Law Association, and their member organizations. These and similar groups should be encouraged to cooperate with the United Nations and vice versa.

(7) It is feasible for the other member nations of the United Nations Ad Hoc Committee on the Peaceful Use of Outer Space to proceed with their work minus the Communist bloc members if the latter cannot be pursuaded to participate. Recent history suggests the Soviets and their satellites, whether or not they help initiate the rules, may go along with agreements observed by a large enough majority of nations. Witnesses testified that the Soviets have done this in the case of territorial ownership in the Antarctic, in the case of the international atomic energy program, and in the general observance of flight law as promulgated by the Convention of International Civil Aviation although they have never became a party to that treaty.

V. RECOMMENDATIONS ON U.S. SPACE POLICY

It is the view of the committee that the U.S. Government, through its established procedures, should give serious consideration to the formulation of a positive national policy on the control and use of outer space by the world community.

Wisdom of forming a policy

The committee further believes that in determining the wisdom of establishing such a policy, particular attention should be given to balancing these factors:

(*a*) The psychological and political benefits which the United States may gain from its leadership in the realm of international cooperation and control in space against the possibility of being precluded by such policy from using space in ways not denied to other countries.

(*b*) The dangers inherent in acting too soon and with insufficient information against the dangers of delaying too long and thus permitting the growth, by custom and usage, of vested interests in space—interests which might become impossible to overcome except by force.

(*c*) The advantages which a declared policy might have from social, political, economic and, scientific standpoints against the disadvantages,

if any, which a stated policy might pose for the Armed Forces in carrying out their mission of national security.

Policy points to consider

After weighing these and other important elements of the problem, the committee concludes that a more definite policy toward the control and use of space is warranted and that the United States should assume leadership in this phase of the space endeavor. The committee recommends:

(1) That the U.S. position be established at the earliest practicable date and announced immediately thereafter as a guide to the American delegation serving on the United Nation's ad hoc committee and as notice to other countries of U.S. objectives.

(2) That U.S. policy make clear the American attitude on these basic principles:

(*a*) Whether the United States considers outer space to be res nullius—that is, presently owned by no one but capable of appropriation for exclusive use—or whether it considers space to be res communis—that is, unclaimable territory free for peaceful use by all;

(*b*) Whether the United States considers that international agreements on the use of space should follow a Magna Carta approach and permit any activities except those expressly limited, or a more restrictive approach which will permit only such activities as may be expressly authorized.

(3) That U.S. policy be formulated to make maximum use of the International Court of Justice and to stimulate other countries to submit their differences, relative to space, to the Court for settlement.

(4) That the United States indicate its willingness to negotiate for space agreement in regard to:

(*a*) Orbiting objects;
(*b*) Notice of launch;
(*c*) Identification of space vehicles;
(*d*) Liability for damage resulting from space activities;
(*e*) Communications frequencies involving one or more space craft.

(5) That United States policy stress an intent to identify immediately key scientists in other free world countries who might be willing to work with or for the American space effort, and to establish new and more effective channels for the exchange of information in the space sciences.

(6) That the United States emphasize its intent to consider the needs and opinions of all countries in negotiating for agreements on the control and use of outer space; that recognition be given to the fact that many countries are now participating in the world's space ventures in a variety of ways and that, within a few years' time, a number of nations will have the space capabilities presently possessed only by the United States and the Soviet Union.

(7) That U.S. policy toward the control and use of space, aside from its existing commitment to peaceful purposes, be limited for the present to seeking agreements only on the civil uses of space.

(8) That the United States serve notice that it does not intend, by implication, to limit its national sovereignty or its right of self-defense in space, through any agreement which is not specifically directed to such objectives.

Conclusion

The committee concurs with General Counsel Johnson of the National Aeronautics and Space Administration when he says:

> Unless collective steps are taken to subject the exploitation of outer space to an orderly restraint, it is quite probable that fear, rather than hope, will dominate man's attitude toward these amazing new developments, and that national security, rather than scientific advance and the economic benefit of mankind, will keynote every new effort. It is the task of law and international organization to prevent such a disaster.

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